



# **FMCSA Analysis Division**

## **Program and Projects Overview**

**March 24, 2009**

**FMCSA**  
**Analysis Division**



# Analysis Division

- One of three divisions in the Office of Analysis, Research and Technology
- Staff:
  - Statisticians
  - Economists
  - Transportation Specialists
  - Environmental Protection Specialists
  - Management Analysts



# Information Collection

- Information Collection Team
  - Herman Dogan: Team Lead
  - Mercyle Farrell
- Information Collection Requests
  - 28 ICRs; 250M+ annual burden hours
  - 20 ICRs submitted to OMB annually for renewals, regulations, etc.
- Forms
  - Responsible for form design
- Records
  - Manage FMCSA's records control schedule
  - Coordinate with National Archives and Records Administration



# Data Quality

- Data Quality Team
  - Betsy Benkowski: Team Lead
  - Magdalene Skretta
  - Volpe National Transportation Systems Center
  - University of Michigan Transportation Research Institute (UMTRI)
  - National Institute for Safety Research (NISR)
- Safety Data Improvement Program (SaDIP) Grants
- Technical Assistance
- State Safety Data Quality (SSDQ)
- DataQs Data Correction
- Census Data File Cleanup



# Data Quality Funding

- Safety Data Improvement Program (SaDIP) Grant Funding
  - 42 States
  - \$32,000,000
  - 2009 – \$3 Million
  - Applications due January 30, 2009
  - Advertise 2010 Funds: May 1, 2009
  - [Grants.gov](http://Grants.gov)
  - Code of Federal Domestic Assistance (CFDA): 20.234



# DQ Technical Assistance Training

- Crash Data Collection
  - FMCSA Selection Criteria for Reportable Crashes
  - Identifying the Responsible Motor Carrier
  - Vehicle Information
- Training is Tailored to the State Police Accident Report Form (PAR)
- No Cost to the State
- Train the Trainer
- Over 10,000 trained -Trained in 23 States



# DQ Technical Assistance

- Recommendation Categories
  - Crash Form Improvements
  - Electronic Collection at the Scene
  - Extract Logic/Coding
  - Criteria Applied for Hand-Selecting Crashes
  - Tracking Reports Throughout the Process
  - SAFETYNET Practices
  - Empty Fields Research
  - Organizational Coordination

Comprehensive—NH, NC, PA, NJ, IL TN, LA, IN, MA, NM, MD, WI, OH\*  
Focus—SC, MS\*  
2009—WV, CA, UT, TX, AL



# DQ Technical Assistance

- Evaluation of State Crash Reporting
- Reports available online
- Ratio of Crash Severity Analysis (fatal to non-fatal crashes)

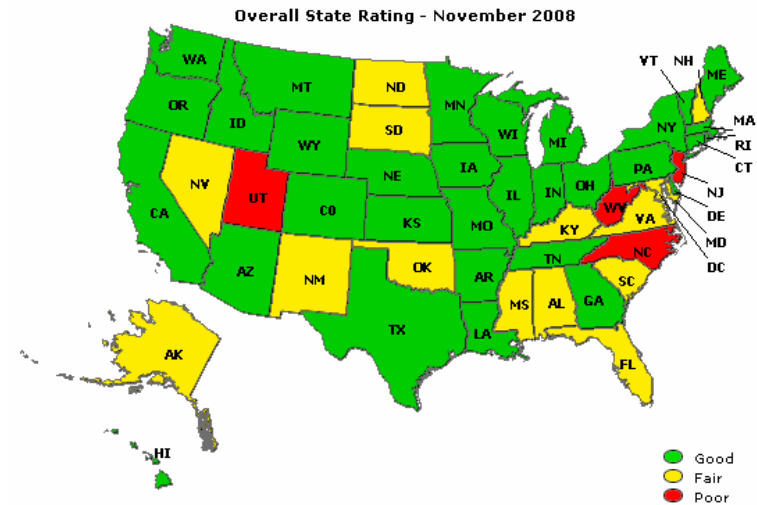
28 States

SC, ME, KY, ID, GA, CT, AL, IN, PA, AZ, TN, SD, WI, CA, NE, LA, OH, MO, IA, MD, WA, IL, NC, NJ, FL, MI, AR, SC

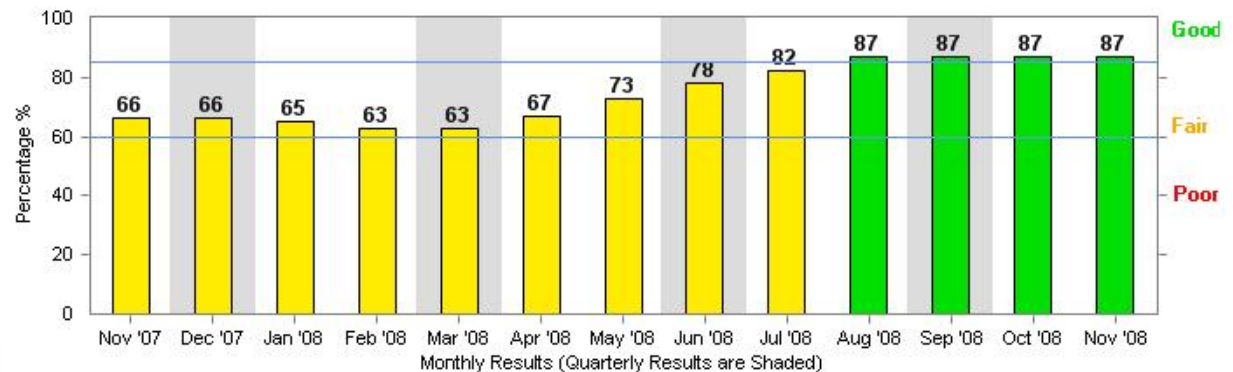


# State Safety Data Quality (SSDQ)

- 7 performance measures:
  - Completeness – Fatal crashes; Non-fatal crashes; Record
  - Timeliness – Crash & Inspection uploads;
  - Accuracy – Match of Carrier crash and inspection data to FMCSA Census file



Missouri: Crash Timeliness Measure



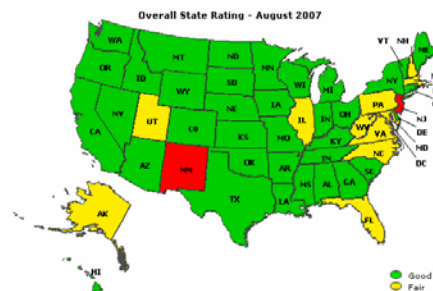


# State Safety Data Quality (SSDQ)

SSDQ Implemented  
(March 2004)



3-yr Improvement  
(June 2007)

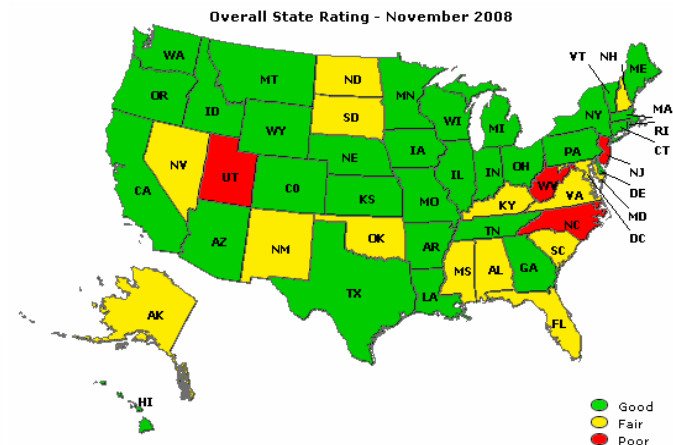


New Measures  
(September 2007)



|      | Mar 2004 | Jun 2007 | Sep 2007 | Jan 2009 |
|------|----------|----------|----------|----------|
| Good | 24       | 38       | 27       | 32       |
| Fair | 13       | 10       | 16       | 14       |
| Poor | 14       | 3        | 8        | 5        |

16-month Improvement  
(January 2009)





# DQ Technical Assistance

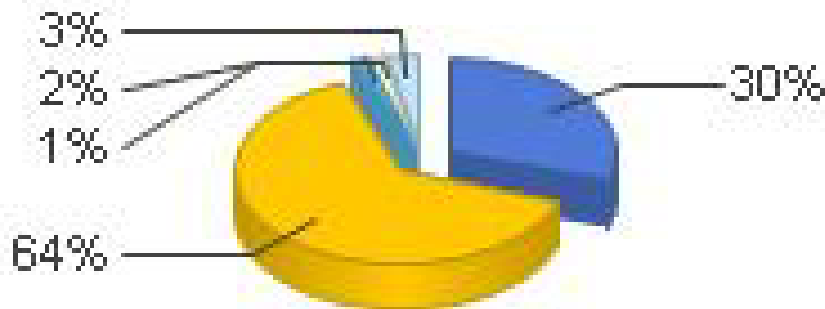
- Monitor SSDQ Evaluation Reports
  - Review SSDQ Measures for improvement
  - Create/Analyze Custom Crash & Inspection Analysis Reports
  - Provide Information/Training to help improve SSDQ
  - Facilitate solutions to identified data quality improvement areas



# Data Q's



## DataQs Data Challenges Feb 2004 – January 2009



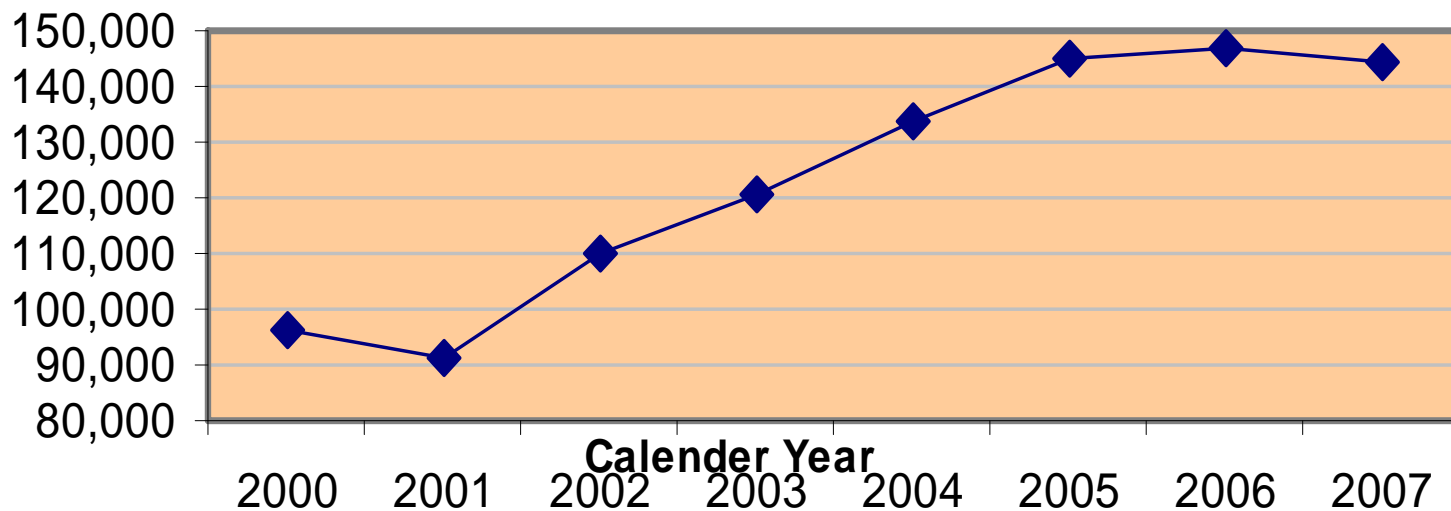
- Total Crash
- HHG Complaint - Duplicate (Two identical complaints)
- Carrier Information (MCS-150)
- Operating Authority (OP-1, OP-2)
- Insurance Information
- Interstate Carrier - Unregistered (No US DOT #)
- Inspection - Report Request
- HHG Complaint - Fraudulent (Did not do business)
- Total Inspection
- Compliance Review
- Safety Audit
- Enforcement Action
- Other

- ~46,000 data challenges filed (66% resulting in data updates)
- ~1,200 new challenges per month
- ~15,000 general public/motor carrier registrations
- ~350 new general public/motor carrier registrations per month



# SSDQ Impact

## State Reported Large Trucks Involved in Fatal and Non-Fatal Crashes





# Census Data Improvement

- Validate current contact information
- Create appropriate edit checking
- Identify carriers trying to re-invent themselves
- Identify carriers that need to update or file their information with FMCSA
- Develop policies for action by our division offices, contract staff and State partners



# Data Dissemination

- Data Analysis & Reports Team (DART)
  - Scott Valentine: Team Lead
  - Joungh Lee
  - Sheila Wilson
  - Volpe National Transportation Systems Center
- DART Requests
- Analysis and Information (A&I) Online
- GOTHAM



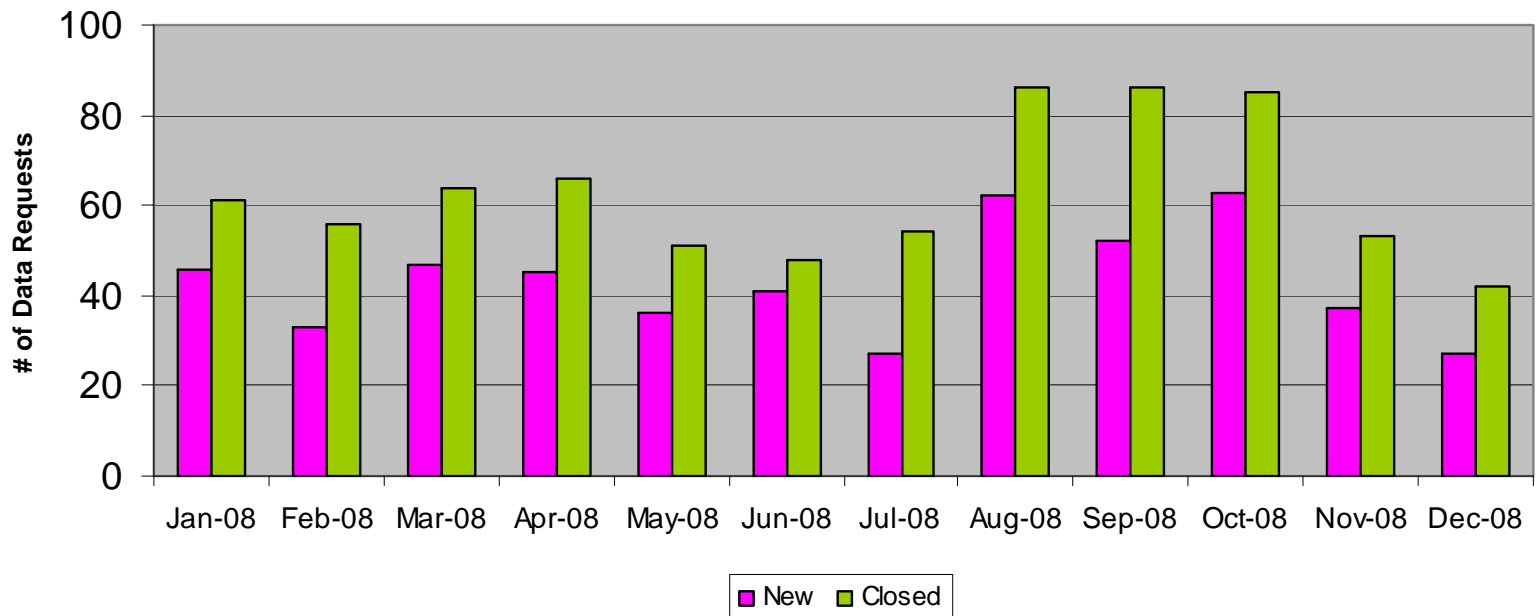
# DART Request Process

- Requests from FMCSA HQ, Field, State Partners, Other Governmental Agencies
- (Public requests handled through FOIA)
- Submit Requests to [datarequests@dot.gov](mailto:datarequests@dot.gov)
- Assess, Coordinate, Process, QA, Review, Distribute
- Response Time
  - High Priority: within 3 working days
  - All Others: within 5 working days
  - 540 New Data Requests in FY08
  - Average 2.2 per workday



# DART Statistics CY08

**Monthly Totals of New/Closed Data Requests**  
**Total as of 12/31/08**



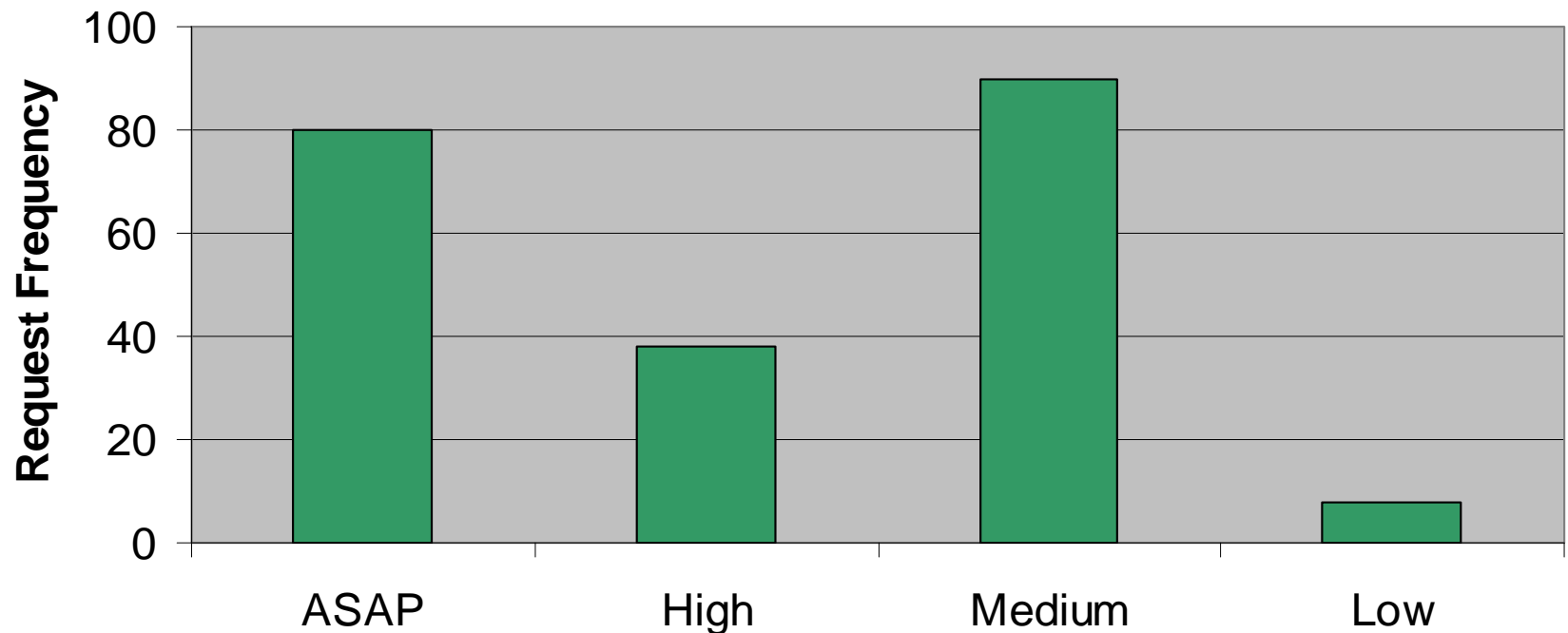


# DART Requests

## DART Requests by Priority

(Aug 08 - Nov 08)

216 Requests



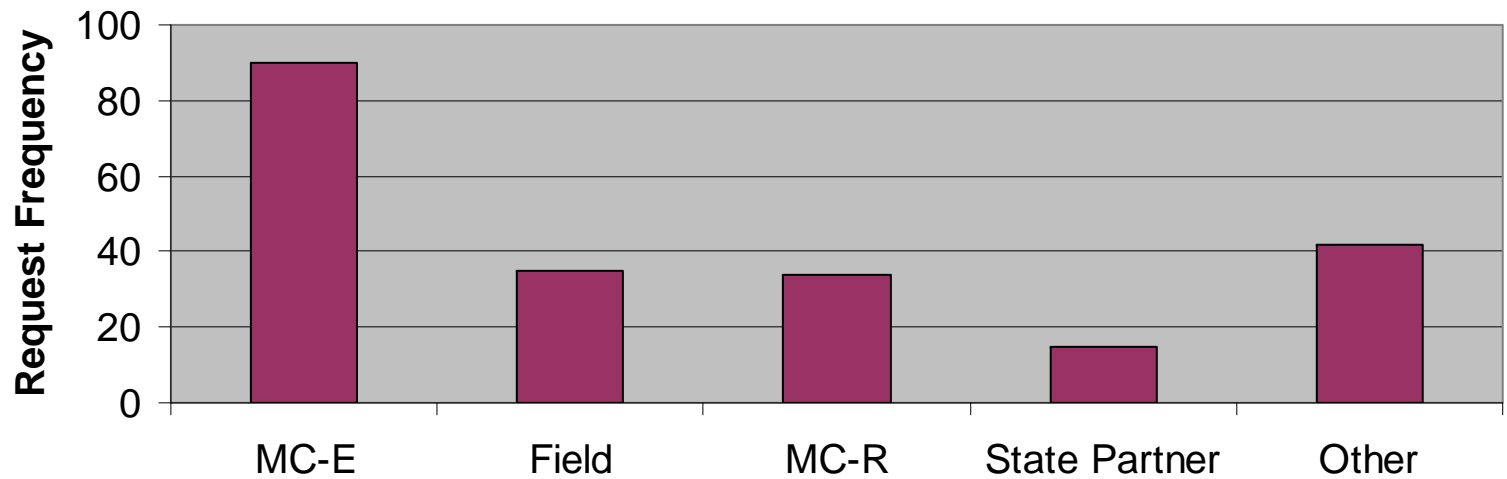


# DART Requests

## DART Requests by Office

(Aug 08 - Nov 08)

216 Requests





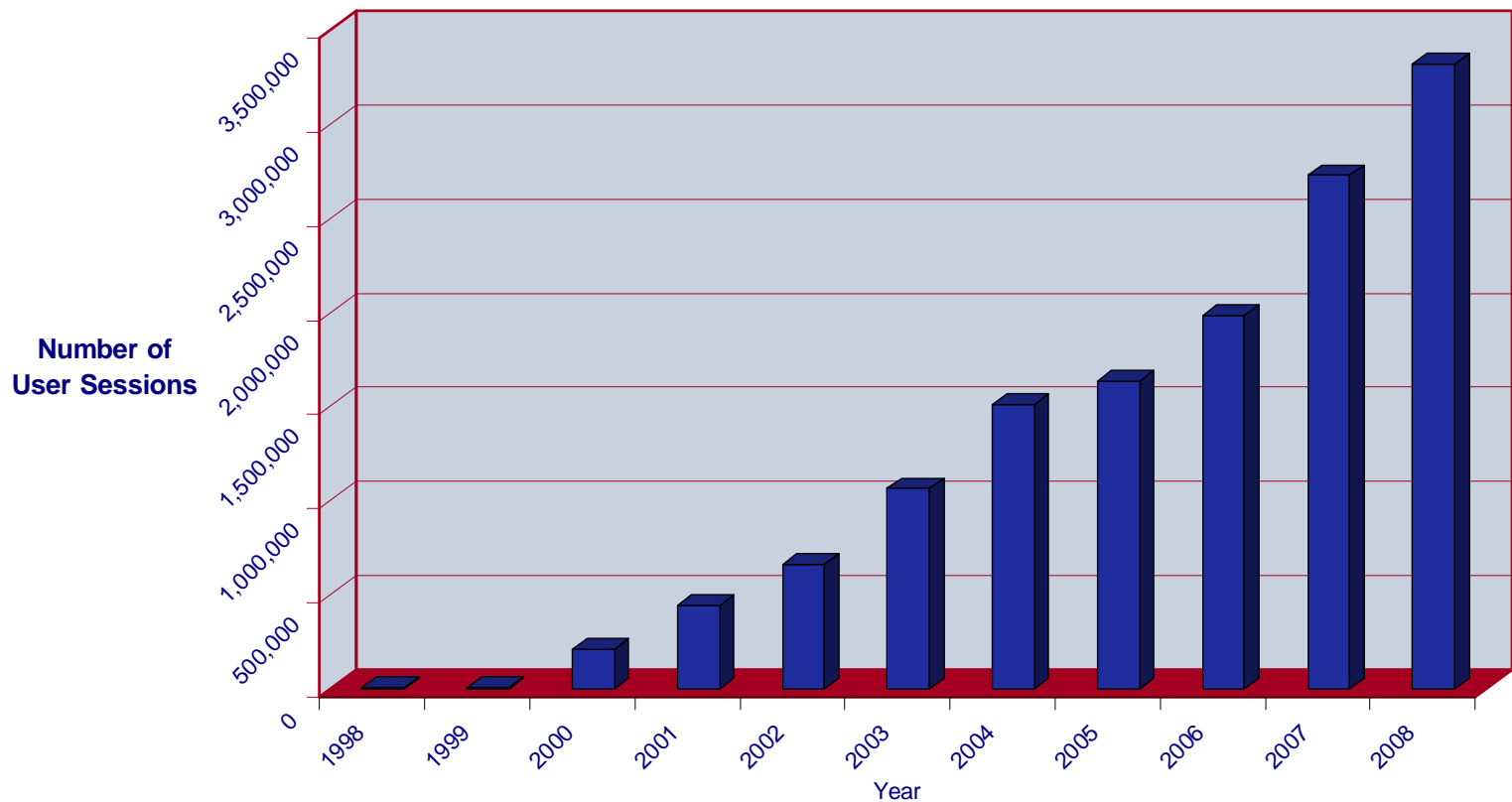
# Analysis & Information Online

- <http://ai.fmcsa.dot.gov>
  - SafeStat Online
  - Crash Statistics
  - Program Measures (Compliance Reviews, Roadside Inspections, Targeted Enforcement data)
  - Program Effectiveness Studies
  - NAFTA Safety Stats
  - FMCSA Tools (CVSP Toolkit, DIR)
  - Analysis Results and Reports
  - Data Quality



# Analysis & Information Online

## A&I Online Growth



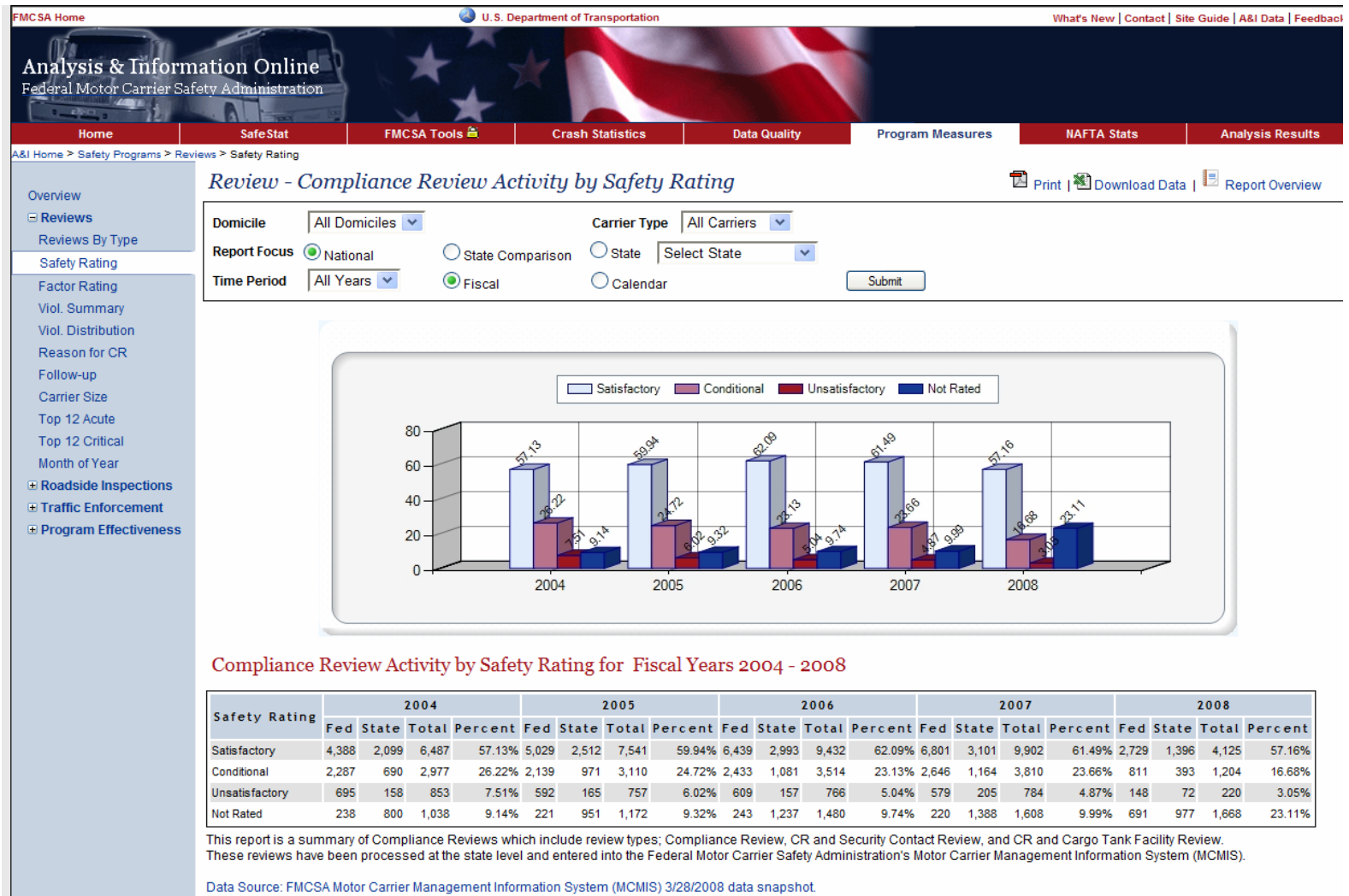


# Analysis & Information Online Interface Redesign

- FMCSA Standard Interface
- Consistent Navigation
- COMPASS Integration
- Expanded Report Filters
- Monthly Updates (where available)
- Faster Implementation of New Requirements
- New Registration & Census Report Area
- New Program Effectiveness Area
- Integrated GIS Mapping

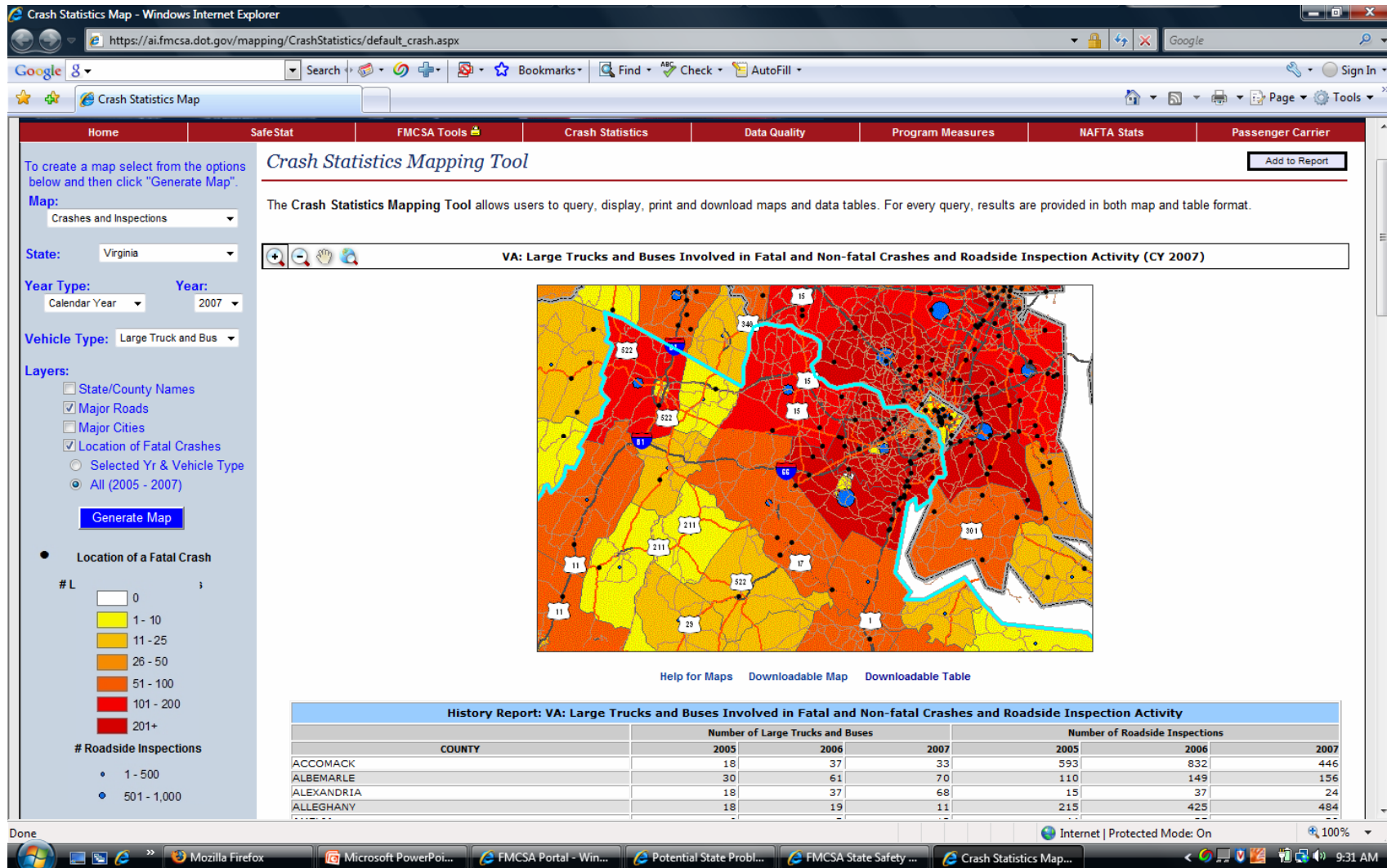


# A&I Reports





# A&I Mapping Tool





# GOTHAM Redeployment to A&I

- GOTHAM migrated to Volpe Center Sep. 2006
- Operations Support
  - Publish 50+ reports weekly (MCMIS, L&I, EMIS data)
  - Respond to field requirements
- Three-phased Redeployment of Reports
  - Phase I: Field Roster, Carrier Prioritization, New Entrant and Carrier Registration (Mar. 2009)
  - Phase II: FMCSA Safety Program Reports to track reviews, enforcements and inspections (Jun. 2009)
  - Phase III: Performance Reports to track safety programs and investigator productivity (Aug. 2009)



# Regulatory Evaluation

- Reg Eval Team
  - Mike Johnsen: Team Lead (On detail)
  - Mindy Shalaby: Acting Team Lead
  - Mark Johnson
  - Fred Bellemore
  - Brian Preslopsky
- Regulatory Evaluation Process
  - Regulatory Impact Analyses (Benefit-Cost)
  - Part of a regulatory development team with other FMCSA divisions



# Regulatory Evaluation (continued)

- Regulatory Evaluation Process

- All rules reviewed by:
  - HQ Program Offices
  - Office of Chief Counsel
  - Office of the Secretary
  - Office of Management and Budget (OMB) (for significant rules)

- Regulatory Evaluation Guidelines

- Our Goal: accuracy, consistency, and uniformity.
- Analysis Division Handbook
  - data sources, definitions and methodologies.



# Regulatory Evaluation (continued)

- Examples of Current Rules and Multiple Possible Data Sources:
  - Carrier Safety Fitness Determination  
Data Need: Current and past number of carriers  
Data Source: Motor Carrier Management Information System (MCMIS)
  - Minimum Levels of Financial Responsibility (Canadian Carriers)  
Data Need: Canadian carriers operating in US  
Data Sources: MCMIS and Licensing and Insurance (L&I) database
  - Entry-Level Driver Training  
Data Need: Projected number of drivers  
Data Sources: MCMIS and USDOL (Bureau of Labor Statistics)



# Regulatory Evaluation (continued)

- Other Required Analyses

- Regulatory Flexibility Analysis (RFA)
  - Effects of rules and regulations on small businesses
- National Environmental Protection Act (NEPA) Analysis
  - Impact of rules and regulations on the environment
  - Prepare Environmental Impact Statements (EIS) on; potential damage to:
    - Potential damage to quality of soil and water
    - loss of habitat
    - risks to endangered species.
  - EIS statements are reviewed by the EPA and the public.

- Economic Research and Studies

- Economic reports, surveys, analysis briefs and technical briefs



# Analytical Studies

- Analytical Team

- Richard Gruberg: Team Lead
- Mokbul Khan
- Volpe National Transportation Systems Center
- Cooperative Agreements

- Activities

- Design Surveys and Produce Survey Estimates (Drug & Alcohol survey)
- Design and Conduct Evaluations of Existing and Proposed Programs (CSA2010 Operational Model Test, New Entrant Study, Report to Congress on Civil Penalties)
- Perform Special Studies to Support Policy Decisions (Agricultural Commodities Carrier Study)



# Crash Statistics

- Crash Statistics Team
  - Ralph Craft: Team Lead
  - Anne Marie Weber and Hortencia Jimenez
- Large Truck Crash Causation Study
  - 963 Large Truck fatal and injury crashes
  - Collected hundreds of data elements and over 100 pictures on each
  - Coded critical event, critical reason, and crash factors on each crash
  - Public Information includes
    - Report to Congress, 2006
    - Analysis Brief, 2007
    - Database: downloadable version, users manual, codebook
    - LTTCS case viewer: pictures and data on individual cases
    - Sample data tables
    - Study methodology
    - Use of study data
- Follow-up study to be conducted with NHTSA National Motor Vehicle Crash Causation Study



# Crash Statistics (continued)

- Bus Crash Causation Study
  - 39 fatal and injury crashes in New Jersey
  - Extensive data on each case
  - Report to Congress and Database ready this year
- Annual Large Truck and Bus Crash Facts – over 70 tables and figures on truck and bus fatal, injury and property-damage only crashes
- Annual Large Truck Crash Overview – brochure of summary data on large truck crashes
- Special Studies
  - Passenger Carriers Operating Without Authority
  - Analysis of Fatal Crash Risk by County
  - Motor Carrier Crash Accountability – support for CSA 2010



# Special Projects

- Pre-Employment Screening
  - Carriers obtain driver history prior to hiring
  - Contractor coordinates between carrier & driver
  - Contractor obtains driver history from FMCSA
  - Based on Driver Information Resource (DIR)



# Contact Information

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# Sources of Information

- Websites

- FMCSA Homepage
  - [www.fmcsa.dot.gov/](http://www.fmcsa.dot.gov/)
- Analysis, Research and Technology Homepage
  - [www.fmcsa.dot.gov/art](http://www.fmcsa.dot.gov/art)
- Analysis & Information (A&I) Online
  - [ai.fmcsa.dot.gov](http://ai.fmcsa.dot.gov)

- Past Webinars

- [www.fmcsa.gov/facts-research/art-webinars-past.asp](http://www.fmcsa.gov/facts-research/art-webinars-past.asp)
  - FMCSA 2008 SADIP Grant Funding Program
  - Safety Data Improvement Program Grant Funding for 2009
  - FMCSA Truck and Bus Crash Facts